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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/028,155	12/20/2001	Christy L. Lee	01-628US	3386
719	7590	07/19/2004	EXAMINER	
CATERPILLAR INC. 100 N.E. ADAMS STREET PATENT DEPT. PEORIA, IL 616296490			UNDERWOOD, DONALD W	
			ART UNIT	PAPER NUMBER
			3652	

DATE MAILED: 07/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/028,155	LEE, CHRISTY L.
	Examiner	Art Unit
	Donald Underwood	3652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 04/22/04.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-7 and 10-17 is/are pending in the application.
 4a) Of the above claim(s) 18-20 is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-7 and 10-17 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____. |

Detailed Action

1. The drawing proposal filed 04/22/04 has been approved. A corrected sheet comprising figures 1 and 2 should be provided in response to this action.
2. Claims 18, 19 and 20 stand withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 5.
3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 1-4, 6, 7 and 10-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear how the position of the reinforcing member will minimize a weight of the member. Note claims 1 and 13 have been amended to delete size selection. Clarification is required.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 2, 3 and 6 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Peterson.

It is inherent that the plates 74 and 76 and tube 122 (claim 9) are sized to receive the expected loads and/or are located at the points where these loads will occur since

larger and/or heavier plates would increase weight and thus cost and it is desirable to hold manufacturing costs down and since the plates and tube are connected at connection points on the boom.

Regarding applicant's amendment to claim 1, this is not a structural limitation but a step that an assembler would consider when placing the reinforcing structure, i.e., part of an assembly step. Moreover, the reinforcing structure 74 could be slid forward or rearward prior to assembly as long as attachment pin 68 was placed in the bend. Note figure 2 of Peterson shows 68 against the right side of the bend toward the rear end of the boom but it could be positioned against the left side of the bend toward the front end of the boom.

7. Claims 1, 2, 3, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peterson.

While the examiner is of the opinion that the structure in Peterson inherently meets the instant claims for the reasons set forth in the above rejection, it would have been obvious to size plates 74 and 76 and tube 122 to be no larger than needed to handle the expected loads because this would have saved manufacturing cost. Parts are conventionally manufactured to withstand the expected loads but not overdesigned to increase weight and size.

The remarks regarding the amendment to claim 1 set forth in the preceding rejection are herein repeated.

8. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Waka.

Note Waka figures 10-13 comprise top 24, sides 25, bottom 27 and reinforcing 28, 43. It would have been obvious to size the reinforcing to be no larger than needed to handle the expected loads because this would have saved manufacturing cost. Parts are conventionally manufactured to withstand the expected loads but not overdesigned to increase weight and size.

Regarding applicant's newly added limitation to parent claim 1, note reinforcing 28 can vary in size. See figure 11 and 12 where 28 extends upward further in fig 12 than figure 11. Finally as noted in the rejection of claim 1 this newly added limitation does not provide a structure limitation. See the rejection of claim 1 above.

Regarding claim 5, 43 in Waka comprises a rib as broadly claimed and 28a base portion.

9. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Peterson as applied to claim 1 above, and further in view of the following comment.

Peterson is silent on how these elements are assembled; however, laser welding is a conventional way of assembling metal structure and thus it would have been obvious to use laser welding to assemble the elements in Peterson.

10. Claims 10-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al in view of Peterson.

It would have been obvious to provide boom 5 in Kobayashi with plates and provide the cylinder mounts on the plates instead of attaching the mounts directly to the booms as in Kobayashi in view of the teaching in Peterson because this would better spread the loads to the boom. As for sizing the plates to reduce weight or to locate the

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plates at the selected attachment point to reduce weight, manufacturing dictates the former since weight sewing and thus cost are conventional manufacturing criteria and Peterson teaches the latter by locating his reinforcing at loading points.

Regarding the newly added limitation to parent claim 1, the plates added to Kobayashi in view of Peterson would have a tolerance as noted in the rejection of claim 1 in the discussion of Peterson's plates.

11. Applicant's remarks have been carefully considered but have not been deemed persuasive since the newly added limitation "... having more than one attachment orientation" is a newly added limitation addressed in the above rejections. Moreover as noted in the rejection of claim 1 this limitation is not a structural limitation but a step that an assembler would consider when placing the reinforcing structure.

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication should be directed to D. Underwood at telephone number (703) 308-113.

Underwood/vs
July 7, 2004

Donald W. Underwood 7/14/04
DONALD W. UNDERWOOD
PRIMARY EXAMINER